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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,438	04/21/2004	Hayato Nakanishi	119128	7096
25944 7590 06/22/2007 OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER SHANKAR, VIJAY	
			ART UNIT 2629	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/828,438	Applicant(s) NAKANISHI ET AL.	
	Examiner VIJAY SHANKAR	Art Unit 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/21/04</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by LeChevalier (US 7,050,024 B2).

Regarding Claim 1, LeChevalier teaches an electro-optical device, comprising: an electro-optical element with a current-based data signal defining a tonal gradation level of pixels, and supplied to data lines, and with a luminance set in response to a driving current flowing from a power source voltage to a voltage lower in level than the power source voltage (Figs.2-4; Col.8, line 23- Col.12, line 43); the data lines arranged for respective pixels; power source lines to supply the pixels with the power source voltage (Figs.2-4; Col.8, line 23- Col.12, line 43) ; signal transfer lines; a first switching element to control electrical conduction between the data line and the

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signal transfer line (Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33); and a second switching element to control electrical conduction between the power source voltage and the signal transfer line, (Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33); during a first mode (same as precharge period ) in which the data signal is supplied to the data line not through the first switching element, the first switching element is set to be in a non-conductive state while the second switching element is set to be in a conductive state,(Column 3, line 1- Col.5, line 50) and during a second mode (same as exposure period) in which a signal different from the data signal is supplied to the data line through the first switching element, the first switching element is set to be in a conductive state while the second switching element is set to be in a non-conductive state (Column 3, line 1- Col.5, line 50). Also, see Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33.

Regarding Claim 2, LeChevalier teaches the electro-optical device further comprising: a first transistor that writes data to a capacitor in response to the data signal flowing through a data signal channel; and a second transistor arranged along the signal transfer line between the first switching element and the second switching element, having the same characteristics as the first transistor, and is configured in a diode-mode connection. (Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33).

Regarding Claim 3, LeChevalier teaches an electro-optical device, comprising: an electro-optical element with a current-based data signal defining a tonal gradation level of pixels, supplied to data lines and with a luminance set in response to a driving current; the data lines arranged for respective pixels (Figs.2-4; Col.8, line 23- Col.12, line 43); signal transfer lines; and a switching element to control electrical conduction between the data line and the signal transfer line, during a first mode in which the data signal is supplied to the data line not through the switching element, the switching element is set to be in a non-conductive state while the signal transfer line is supplied with a predetermined voltage corresponding to a voltage that occurs in the data line when the data line is supplied with the data signal defining the lowest tonal gradation level, (Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33); and during a second mode in which a signal different from the data signal is supplied to the data line through the switching element, (Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33), the switching element is set to be in a conductive state while the supplying of the predetermined voltage to the signal transfer line is stopped. (Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33)

Regarding Claim 4-7, LeChevalier teaches the electro-optical device the first mode being a normal mode to cause the electro-optical device to display an image under normal operating conditions, and the second mode being a test mode to test the electro-optical device; the signal transfer line is a test line connected to a pad to which

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an external signal is supplied during the test mode; the power source lines including three lines respectively arranged for the three RGB colors, and the three RGB color power source lines have independent and respective signal transfer lines and switching elements. (Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33).

Regarding Claim 8, LeChevalier teaches a method to drive an electro-optical device having an electro-optical element with a current-based data signal defining a tonal gradation level of pixels, and supplied to data lines, and with a luminance set in response to a driving current flowing from a power source voltage to a voltage lower in level than the power source voltage (Figs.2-4; Col.8, line 23- Col.12, line 43), the method comprising: setting, to be in a non-conductive state, a first switching element that controls electrical conduction between the data line arranged for respective pixels and a signal transfer line and setting, to a conductive state, (Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33), a second switching element that controls electrical conduction between the power source voltage and the signal transfer line, during a first mode in which the data signal is supplied to the data line not through the first switching element (Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33); and setting the first switching element to be in a conductive state and setting the second switching element to be in a non-conductive state during a second mode in which a signal different from the data signal is

supplied to the data line through the first switching element. (Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33).

Regarding Claim 9, LeChevalier teaches the method to drive an electro-optical device according to claim 8, the electro-optical device including a first transistor that writes data to a capacitor in response to the data signal flowing through the channel thereof, and a second transistor that is arranged along the signal transfer line between the first switching element and the second switching element, has the same characteristics as the first transistor, and is configured in a diode-mode connection, the method further comprises: supplying the power source voltage of the power source line to the signal transfer line through the second transistor. (Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33).

Regarding Claim 10, LeChevalier teaches the method to drive an electro-optical device having an electro-optical element with a current-based data signal defining a tonal gradation level of pixels, and supplied to data lines and with a luminance set in response to a driving current (Figs.2-4; Col.8, line 23- Col.12, line 43), the method comprising: setting, to be in a non-conductive state, a switching element that controls electrical conduction between the data line and a signal transfer line, and supplying the signal transfer line with a predetermined voltage corresponding to a voltage that occurs in the data line when the data line is supplied with the data signal defining the lowest tonal gradation level, (Figures 7-9, 11-12, Column 17, line 40-

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Col.24, line 65; Col.26, line 1 - Col.29, line 33), during a first mode in which the data signal is supplied to the data line arranged for respective pixels, not through the switching element; and setting the switching element to be a conductive state (Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33) and stopping the supplying of the predetermined voltage to the signal transfer line, during a second mode in which a signal different from the data signal is supplied to the data line through the switching element. (Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33).

Regarding Claim 11-12, LeChevalier teaches the method to drive an electro-optical device the first mode being a normal mode to cause the electro-optical device to display an image under normal operating conditions, and the second mode being a test mode for testing the electro-optical device; the signal transfer line being a test line connected to a pad to which an external signal is supplied during the test mode. (Figures 7-9, 11-12, Column 17, line 40- Col.24, line 65; Col.26, line 1 - Col.29, line 33).



4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VIJAY SHANKAR whose telephone number is (571) 272-7682. The examiner can normally be reached on M-F 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BIPIN SHALWALA can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



VIJAY SHANKAR  
Primary Examiner  
Art Unit 2629

VS